In The Claims

1. (currently amended) A method for managing an access operation for a [[big-size]] nonvolatile memory having a plurality of blocks that includes a data block for storing original data, and a writing block for [[data]] temporary data_storage [[used]] in the access operation, wherein each of the blocks has a plurality of pages and each of the pages has multiple sectors, the method comprising:

setting at least one of the blocks as a page cache block; and

when a host requests to write a data to a storage device, and a size of the data distributes over at least one page, writing at least a portion of the data distributed in a last page of the at least one page into the page cache block. writing-a-last-page-of-a-data, which-is-desired-to-be written-into-the-writing-block, into-one-available-page-of-the-page-cache-block.

2. (currently amended) The method of claim 1, wherein if [[a]]the size of the data [[needs not-to-cross-a-page]]is not larger than a page size, then-the data is directly written into the page cache block.

3. (currently amended)The method of claim 1, wherein if the size of the data distributes at least two pages, the portion of the data distributed in the last page is written to the page cache block while the other portion of the data is written into the writing block. if-a-size-of-the-data needs-to-cross-one-page-then-the-last-page-of-the-data-is-written-into-the-page-cache-block.

4. (currently amended) The method of claim 1, wherein if the data is to be written to a sector belonging to a specific page, and at least one previous page before the specific page has not yet been written into the writing block with the corresponding data, then the at least one

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previous page is copied from the data block into the writing block and the specific page is written to the page cache block. ~~when the data is to be written to a specific sector which is belonging to a specific page but is not belonging to a first page, the previous pages before the specific pages are copied from the data block into the writing block, and the specific page containing the specific sector is written to the page cache block.~~

5. (currently amended) A block structure for a [[big-size]] nonvolatile memory that has a plurality of blocks including a data block, and a writing block for temporary data storage in an access operation, wherein each of the blocks has multiple pages, and each of the pages has multiple sectors, the block structure further comprising:

a page cache block, used for storing at least a last portion of a data, being requested by a host to write to a storage device in the access operation, wherein the data is distributed over at least one page and the last portion of the data is distributed to a last page of the at least one page. ~~for storing a latest page with respect to the writing block when a data is to be written into the writing block for an access operation.~~

6. (currently amended) The block structure of claim 5, wherein if the data has a size within a page size, the data is stored in the page cache. ~~the latest page is a last page of the data, which is desired to be written into the writing block.~~

7. (currently amended) The block structure of claim 5, wherein another portion of the data requested by the host other than the last portion of the data is temporarily stored in the writing block. ~~the data to be written to the writing block is grouped by a page-unit, and a last page is stored in page cache block.~~

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8. (currently amended) The block structure of claim 5, wherein the writing block is used for temporarily storing [[a]]the data, requested by the host to write to the storage device. ~~which is associating with the data block.~~

9. (original) The block structure of claim 5, wherein the writing block and the data block can be swapped when the writing block is fully written.

10. (currently amended) The block structure of claim 5, wherein if a size of the data is within a page size, the whole data is belonging to the last page and is directly written into the page cache. ~~if a size of the data is not greater than a size of one page, then the data is directly stored into the page cache block.~~

11. (currently amended) The block structure of claim 5, wherein if a size of the data is greater than a page size, ~~one page, then~~ only a portion of the data distributed in the last page of the at least one page is stored into the page cache block.

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